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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,523	02/20/2004	Kuo Sheng Lee	E0523-00072	7163
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DUANE MORRIS, LLP			LIE, ANGELA M	
IP DEPARTMENT				
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PHILADELPHIA, PA 19103-4196			PAPER NUMBER	
			2821	

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,523

Applicant(s)

LEE, KUO SHENG

Examiner

Angela M. Lie

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 21-23 is/are allowed.
- 6) ☒ Claim(s) 9-15 and 20 is/are rejected.
- 7) ☒ Claim(s) 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant amended independent claim 9, by adding phrase "through one or more via interconnects which electromagnetically couple the power supply plane to the display area". In particular phrase "electromagnetically couple the power supply plane to the display area" was not previously disclosed neither in specification, nor any claims. It was previously disclosed that there is at least one interconnection enabling the electrical connection between the power plane and the display area, which is significantly different from electromagnetic connection in which case the physical connection does not need to exist.

As to claims 10-14, those claims are rejected by the virtue of their dependency on claim 9.

Allowable Subject Matter

Claims 1-8 and 21-23 are allowed.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art failed to teach a display device comprising: a display area, two power bus lines, cathode layer, an insulating layer, power supply plane, EL elements, wherein those elements are connected in the manner as disclosed in claim 1, and wherein a cathode layer is coupled to a display elements in the display area and to the power bus line of the first type through a first interconnect, and a power supply plane formed on the insulating layer connected to the power bus line of the second type through a second interconnect.

As to claims 2-8, those claims are allowable by the virtue of their dependency on claim 1.

As to claim 21, the prior art failed to teach a display device comprising: a display area, at least one power bus line of a first type, at least one power bus line of a second type; a cathode layer, an insulating layer, a power plane, wherein all those elements are connected in the manner as disclosed in claim 21, and wherein the power supply plane connects to an anode of each display element through a via connection.

As to claim 22, the prior art failed to teach an organic light emission display device comprising a cathode layer, an insulating layer, a power supply plane, wherein those elements are connected in the manner as disclosed in claim 22, and wherein the

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power supply plane connects to one or more power supply lines through one or more interconnections where the interconnections are made at two ends of the power supply lines.

As to claim 23, the prior art failed to disclose a method for forming power supply of a light emission display device, wherein the method comprises: forming a cathode layer, forming insulating layer, forming a power supply plane, and forming one or more interconnections for connecting the power supply plane to one or more power supply lines that provide positive voltage to one or more display element in the display area, wherein the interconnections are formed at two ends of each power supply line.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 16 - 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 16, the prior art failed to disclose a method for forming power supply of a light emission display device, as disclosed in claim 15, and further comprising forming one or more interconnections for connecting the power supply plane to one or

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more power supply lines that provide positive voltage to one or more display element in the display area.

As to claims 17-19, those claims would be allowable by the virtue of their dependency on claim 16.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 15 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Sun (US Publication 2004/0178719).

As to claim 15, Sun discloses a display device, which is inherently formed via method comprising the steps of: forming a cathode layer (Figure 2, element 170), forming an insulating layer covering at least one portion of the cathode layer (Figure 2,

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element 206); and forming a power supply plane (Figure 2, element 104) on the insulating layer (Figure 2, element 206) overlapping the covered portion of the cathode layer (Figure 2, element 108) to form a predetermined area under which a display area is located (Figure 2, wherein the transistor's drain and source placed on top of the layer 203, are considered to be part of active display elements), and wherein the power supply plane provides a substantially even distribution (Figure 2, as shown in this figure the power plane (104) is connected to each transistor, therefore all transistors have even supply of voltage) of power to the active display area though at least one or more via interconnections (Figure 2, the bottom part of the element 104).

As to claim 20, Sun discloses the method comprising the step of forming one or more interconnections (connection to VSS line, paragraph 10) for connecting the cathode layer to at least one power bus line (as shown in figure 4, bus line which has its beginning in element 440a or 440b) in an area that do not overlap with the insulating layer (this is an inherent feature because in order to create an electrical connection, there has to be a space for it, and therefore in the place of interconnection the insulating layer is absent).

Response to Arguments

Applicant's replacement sheets of drawings have been accepted and objection to the drawings is withdrawn.

With respect to claim objection, the applicant has overcome the objection regarding claims 2-3, 14 and 16, and therefore objection to those claims is withdrawn.

Applicant's arguments, see page 8, lines 12-17, filed on 8/29/2005, with respect to claim 1, have been fully considered and are persuasive. The rejection of claims 1-8 has been withdrawn.

With respect to the applicant's assertion on page 8, lines 23-24, that Wakimoto fails to disclose or suggest one or more via interconnects for electromagnetically coupling the power supply plane to the display area, the examiner agrees with the applicant that Wakimoto does not teach this limitation, however the applicant introduces new matter by stating that interconnects electromagnetically couple the power. This limitation was not part of originally filed disclosure, therefore it is not considered.

The Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 5949194 discloses a display element drive method comprising a substrate, an anode, an active display elements, a cathode and an insulator. This reference does not teach the power bus and interconnections to the display active element.
- US Patent 6690028 discloses an organic electroluminescence element display device with organic semiconductor diodes comprising a cathode, an anode, an EL layer, an insulator. This reference, however, does not teach interconnection(s) to the active display elements.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Angela M Lie



WILSON LEE
PRIMARY EXAMINER

~~WILSON LEE~~
~~EXAMINER~~